



FAYETTEVILLE, ARKANSAS

TREE PRESERVATION AND LANDSCAPE MANUAL

CITY OF
Fayetteville
ARKANSAS



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TABLE OF CONTENTS



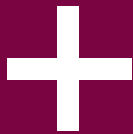
PG 1

INTRODUCTION



PG 3

TYPE OF APPLICATION



PG 5

PRE-APPLICATION INFORMATION
TO GATHER



PG 6

APPLICATION SUBMITTALS



PG 9

THE REVIEW PROCESS



PG 12

BEGINNING CONSTRUCTION
AND FINAL CHECKLIST

APPENDIX

1

INTRODUCTION



WELCOME TO THE CITY OF FAYETTEVILLE LANDSCAPE MANUAL.
SECTION 1 PROVIDES INFORMATION ABOUT THE PURPOSE OF THIS
LANDSCAPE MANUAL.

PURPOSE OF THE MANUAL

The primary purpose of this manual is to provide developers, engineers, architects, landscape architects, and contractors with the City's requirements for tree preservation and protection and landscape installation. This manual corresponds with the requirements detailed in the City of Fayetteville Unified Development Code Chapter 167: Tree Preservation and Protection and Chapter 177: Landscape Regulations. This manual also contains a plant list of invasive plants that are prohibited from being installed in new developments, as well as native suggestions to replace the invasive species (See Appendix page 16).

The appendices of this manual provide information for the developer and the general public on how to navigate the landscape and tree preservation review process. As well as defining the process, this manual outlines the necessary elements of the landscape and tree preservation plans.



ADMINISTRATION OF THIS MANUAL

The urban forester administers and enforces requirements from Chapter 167: Tree Preservation and Protection and Chapter 177: Landscape Requirements. They administer, review, and enforce the tree preservation and landscape ordinances for new developments being constructed in the City limits. The urban foresters are also consulted on tree plantings and landscape installations for City-owned projects such as the development or re-development of buildings and facilities, parklands, parking lots and streets.

URBAN FORESTRY ADVISORY BOARD

The urban forester provides staff support and meets regularly with the Urban Forestry Advisory Board (UFAB). The purpose of the UFAB is to advise the City Council on urban forestry and arboricultural related issues. The committee meets monthly and is comprised of seven members: four citizens-at-large seats and one representative each from the land development community, tree service community and the University of Arkansas.



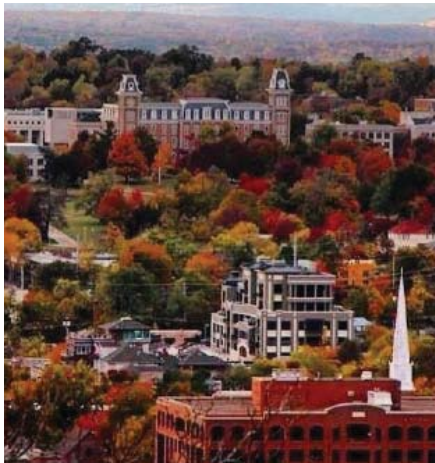
FAYETTEVILLE IS PROUD TO BE A TREE CITY USA



Since 1995 Fayetteville has been recognized as a Tree City USA community.

The National Arbor Day Foundation honors communities with this award if they meet four core standards of sound urban forestry managements:

1. The presence of a tree board or department
2. A community tree ordinance
3. A community forestry program
4. Observance of Arbor Day



2 PROJECT TYPE



SECTION 2 WILL HELP YOU DETERMINE THE TYPE OF APPLICATION REQUIRED FOR YOUR DEVELOPMENT PROJECT.

TYPE

WHAT TYPE OF PROJECT ARE YOU DEVELOPING?

The City's Tree Preservation and Protection ordinance requires development plans be reviewed by the urban forester for certain types of projects.

SMALL SITE IMPROVEMENT PLAN (SIP)

A Small Site Improvement Plan review is required for a non-residential, mixed-use or multi-family development on a site that is less than one acre. The following developments must be processed in accordance with the requirements for a Small Site Improvement Plan : a) A development that is excluded from large scale development review but requires review by multiple City divisions, b) The construction of more than one single-family residence on one lot within a zoning district other than a single family zoning district.

LARGE SITE IMPROVEMENT PLAN (LSIP)

A Large Site Improvement Plan review is intended for large scale developments that are located within a zoning district that permits administrative approval. A Large Site Improvement Plan allows for administrative approval for virtually any sized property.

PRELIMINARY PLAT (PPL)

A Preliminary Plat review occurs when a property is to be subdivided into more than four lots, or when a parent or resulting tract has been subdivided three or more times and is proposed to be further subdivided. A preliminary plat establishes the preliminary location of all lot lines, streets, and utility infrastructure. This allows the applicant to request construction plan approval and to install all required improvements.

PLANNED ZONING DISTRICT (PZD)

A Planned Zoning District is a zoning district that allows for comprehensively planned developments to go through development and zoning review as a simultaneous process.



CONCURRENT PLAT (CCP)

A Concurrent Plat combines the preliminary and final plat into one step. A concurrent plat is permitted when a property is to be subdivided into more than four lots, or when a parent or resulting tract has been subdivided three or more times and is proposed to be further subdivided, and the existing and new parcels do not require construction of new infrastructure.

LARGE SCALE DEVELOPMENT (LSD)

A Large Scale Development is generally intended for, but not limited to, non-residential, mixed use, or multi-family developments on sites of one acre or greater in size, or the construction of a multi-family building or buildings with 24 units where the subdivision of land is not proposed.

HILLSIDE HILLTOP OVERLAY DISTRICT (HHOD)

The Hillside/Hilltop Overlay District is delineated via a Geographic Information Systems (GIS) analysis of steep slopes and specific hillside geologic and soil conditions. Design guidelines for the HHOD include precise standards for road design, grading ordinance requirements and tree preservation. The tree preservation regulations in the HHOD require a minimum preservation of existing tree canopy on all lots.

FINAL PLAT (FPL)

The Final Plat is a complete and exact subdivision plat, prepared for official recording as required by state law, to define property boundaries, proposed streets and other improvements.

3

PRE-APPLICATION INFORMATION



SECTION 4 WILL PROVIDE YOU WITH INFORMATION TO GATHER BEFORE CREATING YOUR DEVELOPMENT REVIEW PACKAGE.

1 CONDUCT A SITE VISIT

The urban forestry team strongly recommends that you visit the site prior to starting the design process. In some cases, you may want to request the urban foresters also visit the site to understand your priorities for creating the most successful development plan.

2 DETERMINE BASELINE DATA

Before starting the design process, it is helpful to complete baseline research regarding your site. One of the most important baseline metrics is identifying the zoning of your property. To find the zoning designation of your property, go to: **WWW.FAYETTEVILLE-AR.GOV/GISZONING**

3 IDENTIFY TREE PRESERVATION REQUIREMENTS FOR YOUR SITE

To identify tree preservation percentage requirements for your site, reference the '*MINIMUM CANOPY REQUIREMENTS*' chart (See Appendix page 17). Use the site's zoning designation to find your tree preservation percentage requirements.

4 IDENTIFY TREE PRESERVATION PRIORITIES FOR YOUR SITE

To identify tree preservation priorities for your site, reference '*PRESERVATION PRIORITIES*' chart (See Appendix page 17).

5 MEET WITH URBAN FORESTERY

Meeting with the urban forestry team before submitting plans to the City is strongly recommended. During the initial meeting, the urban forester will make recommendations to ensure your project complies with requirements of the City Code. This step is important and can help you avoid missteps in the review process. If you

would like more than one visit, the urban forestry team is happy to meet as many times as needed. Contact them at 479.444.3470 or 479.444.3486 with questions and to set up your initial meeting.

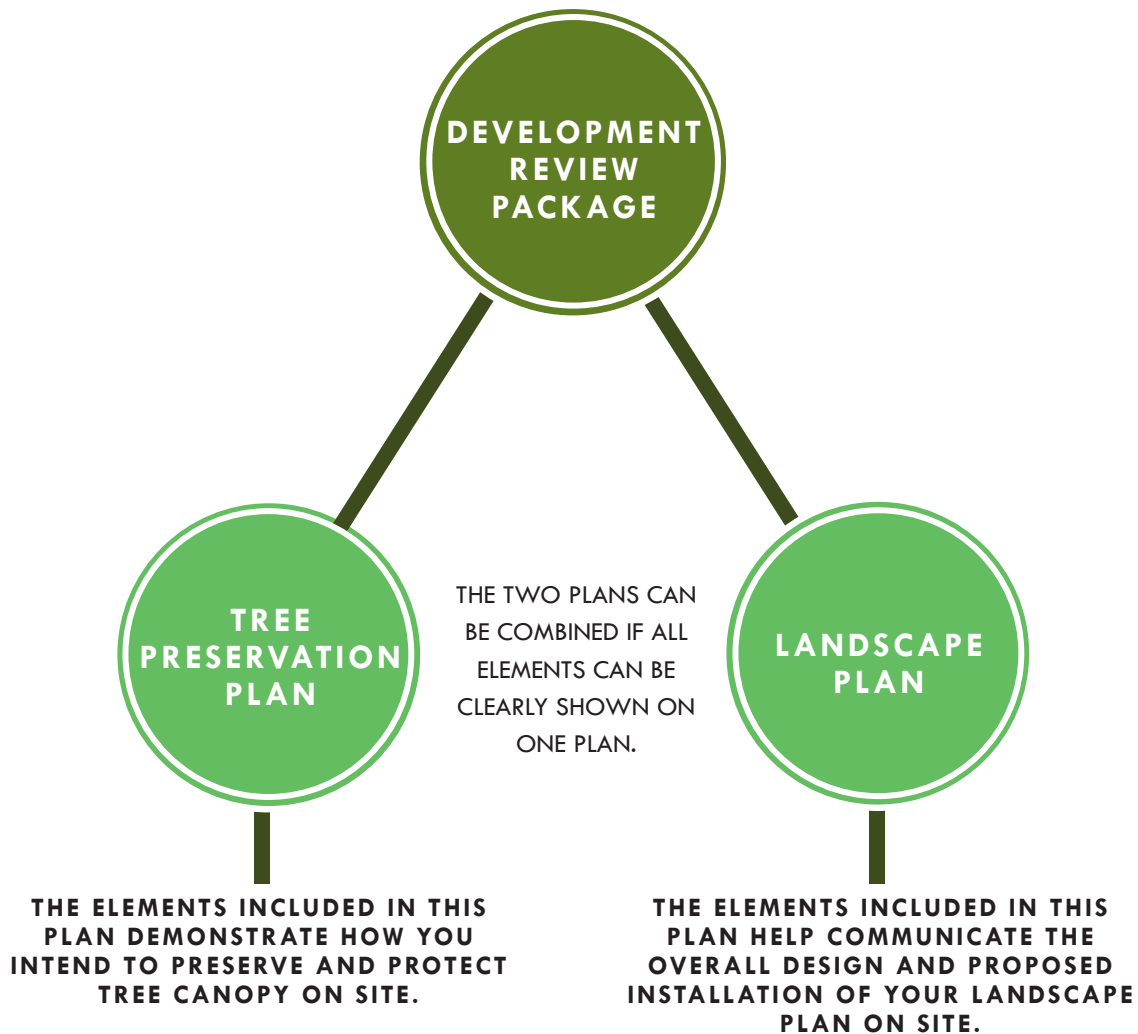
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APPLICATION SUBMITTALS



SECTION 5 IDENTIFIES WHAT SHOULD BE INCLUDED IN YOUR DEVELOPMENT REVIEW PACKAGE APPLICATION.

WHAT'S INCLUDED IN THE URBAN FORESTRY DEVELOPMENT REVIEW PACKAGE?





ITEMS TO INCLUDE IN THE... TREE PRESERVATION PLAN

★ not required for all projects

1. Show existing trees and tree canopies with legend and attach numbers to cross reference the trees.
2. Show canopy coverage as currently exists on site.
3. Include a table with the tree species, size, health and priority level.
SEE PRESERVATION PRIORITIES CHART IN APPENDIX, PAGE 17
- ★ 4. If the property has a large number of trees, group the trees and note the significant specimens.
- ★ 5. Label and number grouped trees with average species, size, health, and priority.
6. Show all existing utilities.
7. Show all property boundaries.
8. Show natural features (trees, flood ways, creeks, wetlands...) beyond the property line up to 100' or as requested by the Urban Forester.
9. Provide soil types.
10. Show floodplains and/or floodways.
11. Show existing streets, sidewalks, or bike path right-of-ways.
12. Show all proposed on-site and off-site improvements.
13. Delineate trees/canopy groups to be preserved and removed.
14. Show Tree Preservation Calculations (After you have entered your numbers into the Tree Preservation Calculator, copy and paste them onto your Tree Preservation Plan.)
[CLICK HERE FOR LINK TO TREE PRESERVATION CALCULATOR](#)
- ★ 15. Show mitigation requirements if indicated as necessary through results of Tree Preservation Calculations.
(If mitigation is required because the project does not meet the minimum preservation requirements, the applicant will need to include this
16. Show all existing and proposed grading.
17. Show limits of soil disturbance.
18. Show location of tree protection fencing.
- ★ 19. Show limits of root pruning.
20. Show construction traffic flow on work site.
21. Locate material storage during construction.
22. Locate concrete wash out during construction.
23. Locate construction entrance/exit.
24. Locate all existing and new utility/drainage easements.
25. Locate all right-of-ways existing and proposed, including master plan street right-of-way.

STANDARD DETAILS

details may go on a separate sheet

26. Detail for Tree Preservation Fencing Installation
SEE EXAMPLE IN APPENDIX, PAGE 18
- ★ 27. Detail for Root Pruning
SEE EXAMPLE IN APPENDIX, PAGE 18
- ★ 28. Detail for Soil Compaction Prevention
SEE EXAMPLE IN APPENDIX, PAGE 19
- ★ 29. Detail for Tree Planking
SEE EXAMPLE IN APPENDIX, PAGE 19

NOTES

notes may go on a separate sheet

30. Standard City of Fayetteville notes for Tree Preservation Plan
SEE EXAMPLE IN APPENDIX, PAGE 20

SHOW IN LANDSCAPE PLAN

If minimum requirements are not met, as indicated through Tree Preservation Calculations show the following on your Tree Preservation Plan:

1. Detail design approach used to minimize damage or removal of existing canopy.
 2. Provide written justification for removal of individual or groups of trees/canopy.
 3. Details providing information about on-site mitigation or off-site mitigation alternatives.
 4. Submit an analysis report/statement to justify low preservation requirements.
- ALSO NOTE :** The process, iterations, and approaches with tree preservation in mind.



ITEMS TO INCLUDE IN THE... LANDSCAPE PLAN

★ not required for all projects

1. Show preserved trees.
2. Show proposed grading.
3. Show proposed building footprint and any other structures.
- ★ 4. Show proposed parking lots with spaces indicated and curb or wheel stops shown.
5. Show existing and proposed utilities.
6. Show existing and proposed topography.
7. Show existing drive aisles, streets, alleys, and other improvements to the site.
8. Show proposed landscaping. As applicable, use these letters for each proposed tree:
 - 'S' for street trees
 - 'M' for mitigation trees
 - 'P' for parking trees
 - 'D' for detention requirements
- ★ 9. Mitigation Requirements (Information gathered from Tree Preservation Plan section. After you have plugged your numbers into the Mitigation Requirements Calculator, copy and paste it onto your Landscape Plan.)
[CLICK HERE FOR LINK TO MITIGATION REQUIREMENTS CALCULATOR](#)
- ★ 10. Parking Lot Trees Requirements (Required for lots with 5 or more spaces. After you have entered your numbers into the Parking Lot Trees Calculator, copy and paste it onto your Landscape Plan.)
[CLICK HERE FOR LINK TO PARKING LOT TREES CALCULATOR](#)
- ★ 11. Storm Water Facility Landscape (detention pond)
(Measured from highest graded elevation plus 10'. After you have plugged your numbers into the Storm Water Facility Landscape Calculator, copy and paste it onto your Landscape Plan.)
[CLICK HERE FOR LINK TO STORM WATER FACILITY CALCULATOR](#)
- ★ 12. Street Tree Requirements (After you have entered your numbers into the Street Tree Requirements Calculator, copy and paste it onto your Landscape Plan.)
[CLICK HERE FOR LINK TO STREET TREE REQUIREMENTS CALCULATOR](#)
- ★ 13. Show required 5' and 15' landscape buffers.

STANDARD DETAILS

details may go on a separate sheet

- ★ 14. Detail for Tree Planting
SEE EXAMPLE IN APPENDIX, PAGE 21
- ★ 15. Detail for Shrub Planting
SEE EXAMPLE IN APPENDIX, PAGE 21
- ★ 16. Detail for Urban Tree Well
SEE EXAMPLE IN APPENDIX, PAGE 22
- ★ 17. Detail for Slope Tree Planting
SEE EXAMPLE IN APPENDIX, PAGE 22

NOTES

notes may go on a separate sheet

18. Standard City of Fayetteville Landscape notes.
SEE EXAMPLE IN APPENDIX PAGE 23
19. Plant Schedule, including species, size and quantity.
SEE RECOMMENDED TREE LISTS ON APPENDIX PAGE 25

5 THE REVIEW PROCESS

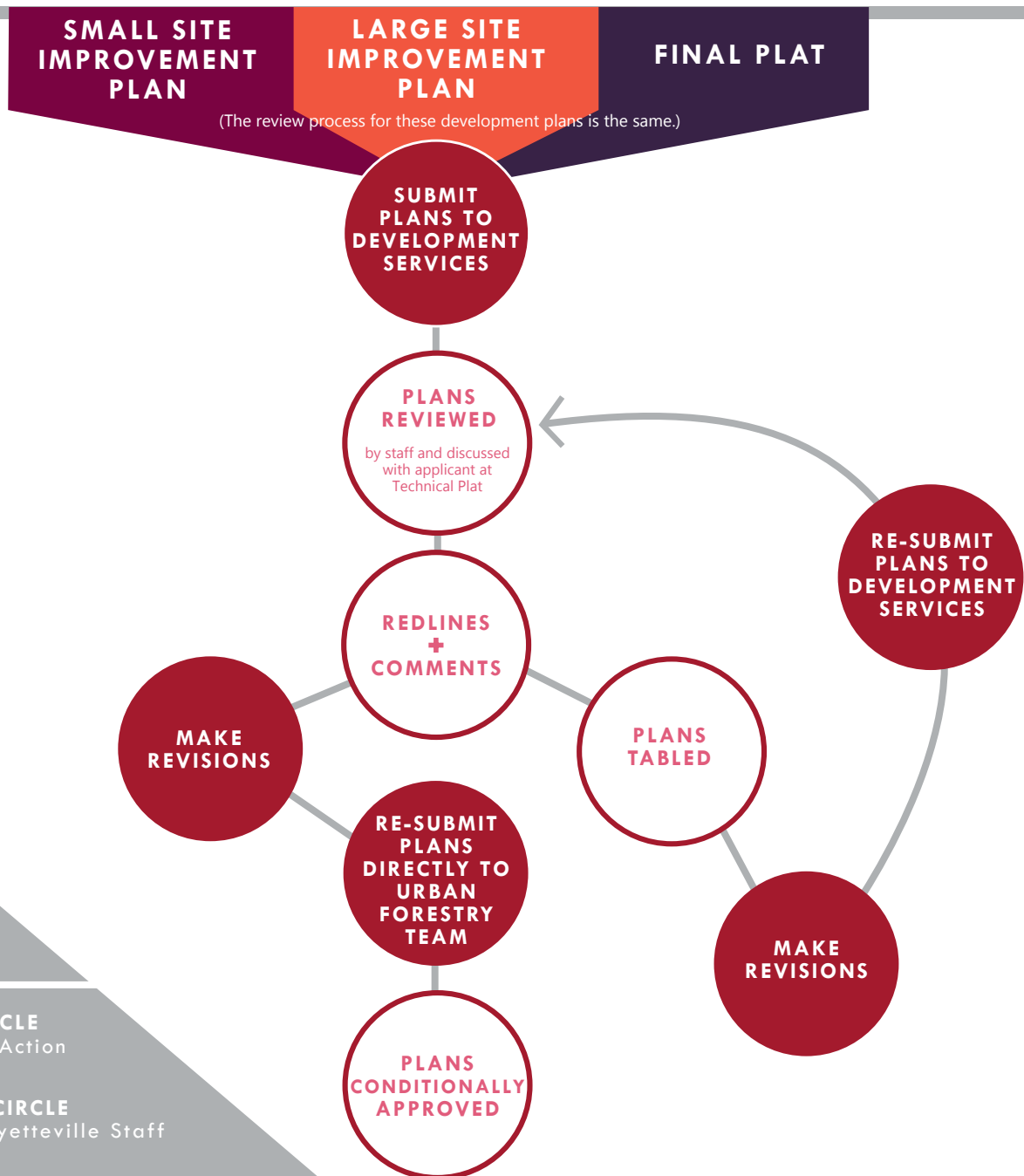


SECTION 3 WILL ILLUSTRATE HOW TO SUBMIT A PLAN TO THE URBAN FORESTRY TEAM.

PROCESS

WHAT IS THE PROCESS FOR APPLYING FOR URBAN FORESTRY REVIEW?

Identify the type of development you are proposing and find the corresponding review process on the following pages.





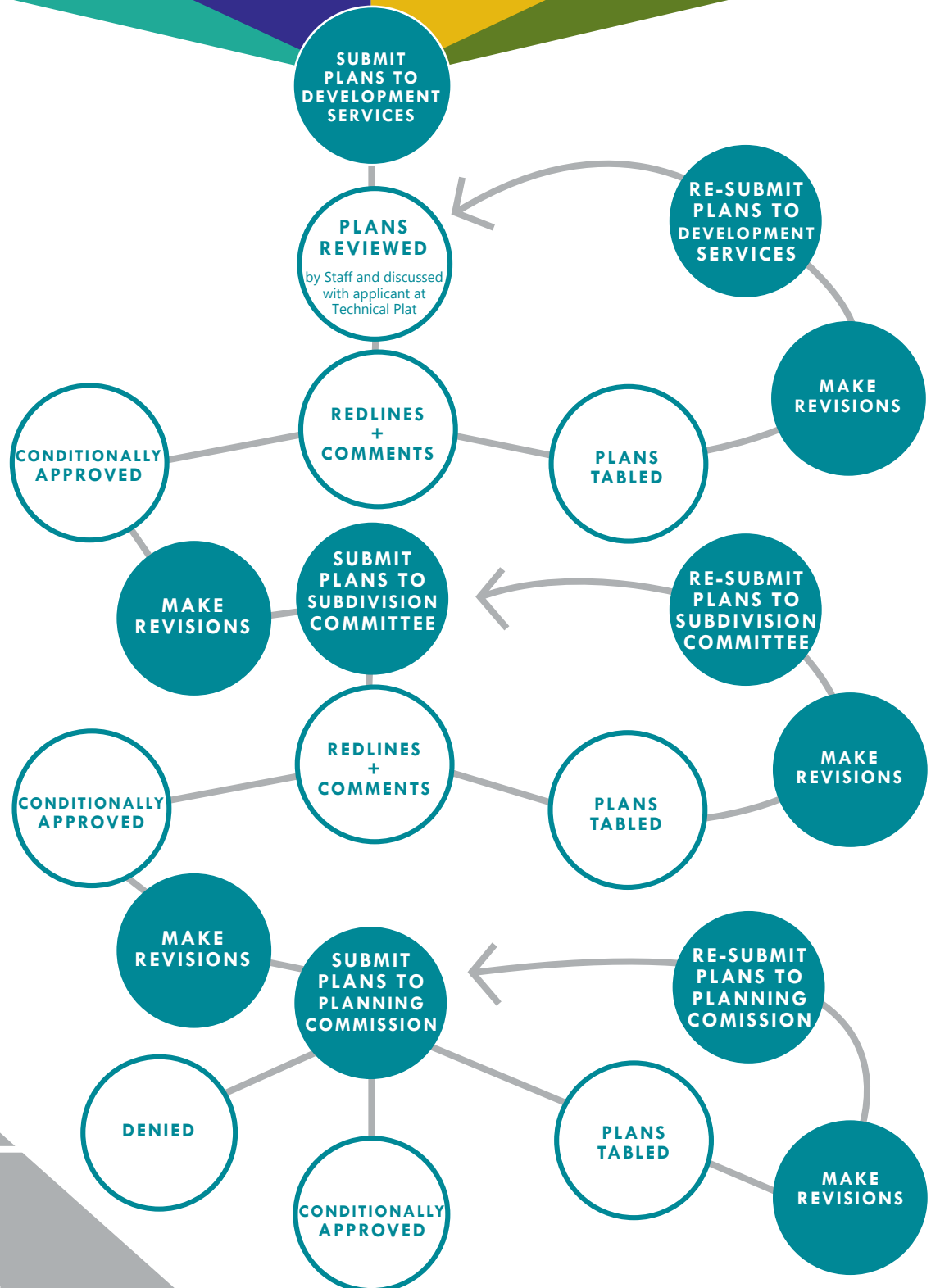
**CONCURRENT
PLAT**

**LARGE SCALE
DEVELOPMENT**

**PRELIMINARY
PLAT**

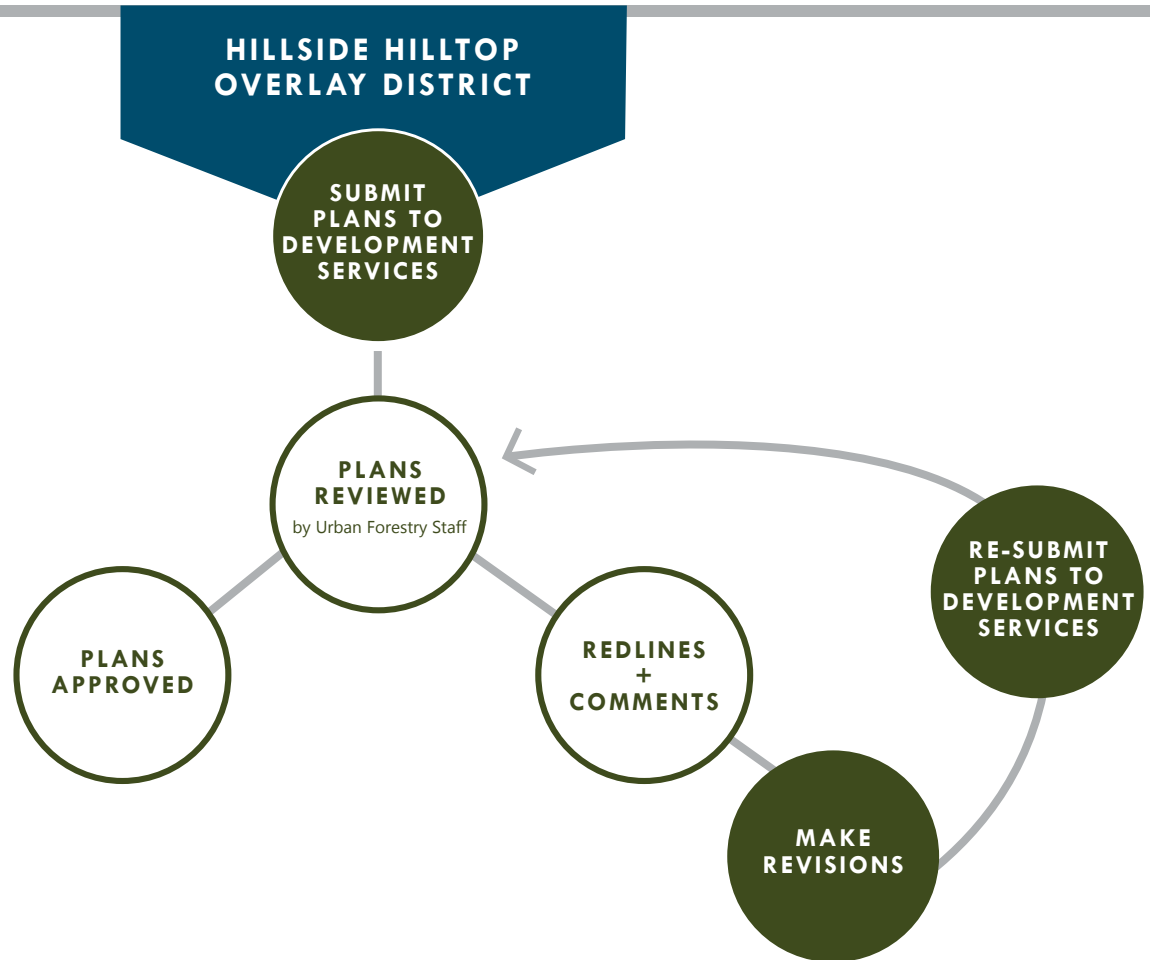
**PLANNED
ZONING
DISTRICT**

(The review process for these development plans is the same.)



LEGEND

- SOLID CIRCLE**
Applicant Action
- HOLLOW CIRCLE**
City of Fayetteville
Staff Action



Notes about Hillside Hilltop Overlay District:

1. Applies to only single-family and duplex residential projects and is the only process that may be completed by email.
2. The above flow chart is for the grading and tree preservation part of the Hillside Hilltop Overlay District review. A building permit is required for the other review processes. Contact Development Services for more information.

LEGEND

- SOLID CIRCLE**
Applicant Action
- HOLLOW CIRCLE**
City of Fayetteville
Staff Action

6

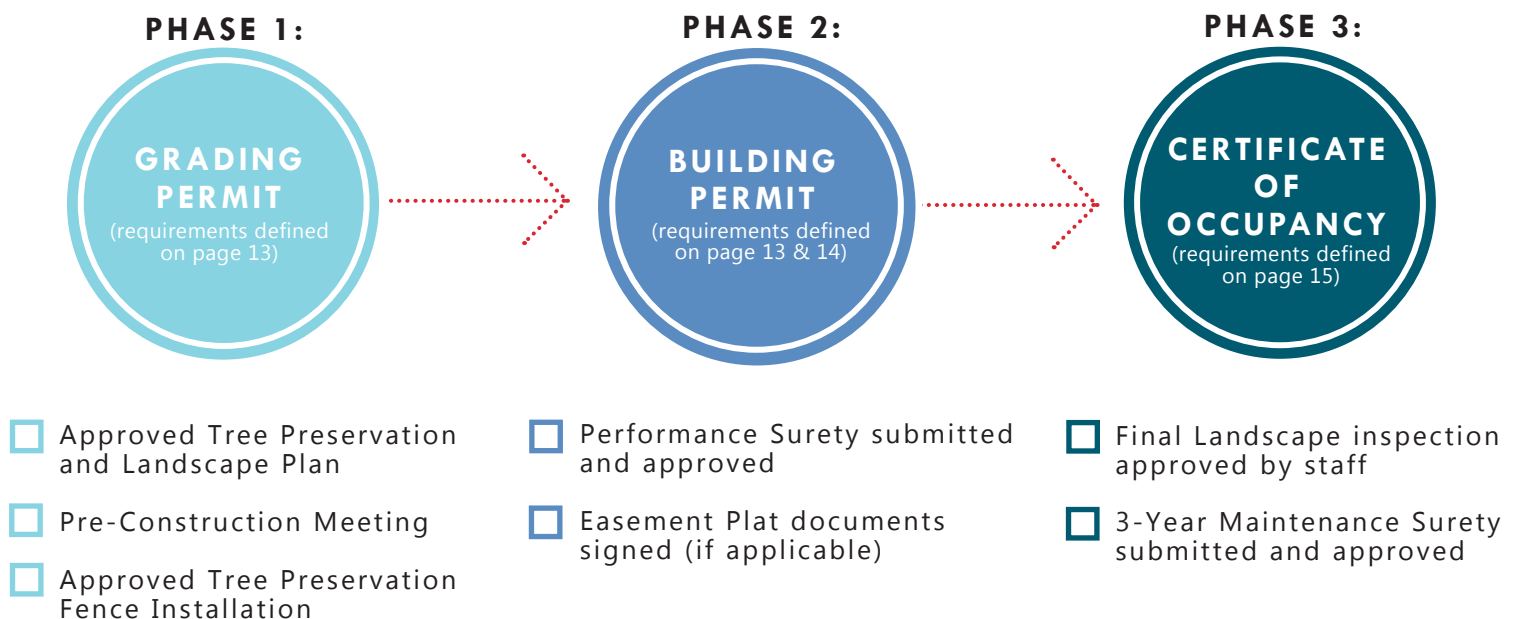
CONSTRUCTION AND OBTAINING A CERTIFICATE OF OCCUPANCY



SECTION 6 WILL PROVIDE YOU WITH INFORMATION ABOUT THE STEPS TO BEGIN CONSTRUCTION AND DO FINAL PAPERWORK.

NOW THAT YOU HAVE GONE THROUGH THE DEVELOPMENT REVIEW PROCESS, IT IS TIME TO START CONSTRUCTION AND DO FINAL PAPERWORK.

A GRADING PERMIT, BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY ARE THE THREE PHASES OF THE CONSTRUCTION AND CLOSEOUT PROCESS. WITHIN EACH OF THE PHASES THERE ARE UNIQUE REQUIREMENTS (SEE LISTS BELOW).





HOW TO OBTAIN A GRADING PERMIT*

- ☐ **APPROVED TREE PRESERVATION AND LANDSCAPE PLAN** In Section 4 and 5 of this manual, Tree Preservation and Landscape Plan requirements are defined in detail. Submission and approval of the two plans is the first step in acquiring a grading permit.
- ☐ **APPROVED TREE PRESERVATION FENCE INSTALLATION** Notify urban forestry that a tree protection fence has been installed. They will visit the site and approve the fencing installation.
- ☐ **PRE-CONSTRUCTION MEETING*** Contact the Engineering Division to set up a time for the pre-construction meeting.

* A preconstruction meeting is required for urban forestry review. Other departments may have additional requirements to be met prior to pre-construction meeting and obtaining a grading permit.

HOW TO OBTAIN A BUILDING PERMIT*

- ☐ **PERFORMANCE SURETY SUBMITTED AND APPROVED** The Performance Surety ensures that landscape requirements are met and installation is completed as specified in the Development Package.

TO WHAT TYPES OF PROJECTS DOES THIS APPLY?

Final Plat
Large Scale Development
Large Site Improvement Plan
Planned Zoning District
Small Scale Site Improvement

WHAT IS THE AMOUNT OF THE PERFORMANCE SURETY?

The amount of the surety is based on an estimate provided by a landscape installation company. The surety is 150% of the estimate amount.

EXAMPLE : Landscape Installation Estimate = \$1,650.00

$\$1,650.00 \times 1.5 = \$2,475.00$ ← **Performance Surety Amount**

WHAT IS THE PROCESS FOR SUBMITTING THE PERFORMANCE SURETY?

Once the project has been approved at the construction level, and the amount of the surety has been established, submit the following to the Development Services and Urban Forestry offices:

1. [Completed Landscape Surety Form](#)
2. Installation Estimate from landscape company
3. Copy of Surety (see types of sureties listed below/on next page)

* Other departments may have additional requirements to be met prior to obtaining a building permit.



PERFORMANCE SURETY SUBMITTED AND APPROVED (CONTINUED...)

WHEN IS THE PERFORMANCE SURETY RELEASED?

The performance surety is released when the construction process is complete and final landscape installation has been inspected by urban forestry. If the installation does not pass inspection, the urban forester will provide a punch list of items to correct and will inspect again until the project passes. After the project passes the surety will be released.

NOTE : The Performance Surety should not have an expiration date due to the possible delay in installation and construction of project.

WHAT TYPES OF SURETIES ARE ACCEPTED?

Bond, Check or Letter of Credit

HOW TO OBTAIN A CERTIFICATE OF OCCUPANCY*

☐ FINAL LANDSCAPE INSPECTION APPROVED BY STAFF

STEP 1 : Landscape Architect of record provides punch list. (*Landscape Architects are not required for SIP and HHOD residential projects.*)

STEP 2 : Applicant corrects punch list.

STEP 3 : Urban forestry is notified to schedule final inspection.

☐ 3-YEAR MAINTENANCE SURETY AND CONTRACT SUBMITTED AND APPROVED

The 3-year Maintenance Surety ensures that 90 percent of street and mitigation trees are maintained for three years post installation.

TO WHAT TYPES OF PROJECTS DOES THIS APPLY?

Concurrent Plat
Final Plat
Large Scale Development
Large Site Improvement Plan
Planned Zoning District
Small Scale Site Improvement
(*HHOD single family residential reviews are exempt*)

WHAT IS THE AMOUNT OF THE 3-YEAR MAINTENANCE SURETY?

The amount of the surety is \$675 per tree. The amount is reviewed every four years to ensure fair market estimate.

EXAMPLE : \$675.00 x 18 trees = **\$12,150.00** ← **3-Year Maintenance Surety Amount**

WHAT IS THE PROCESS FOR SUBMITTING A 3-YEAR MAINTENANCE SURETY AND CONTRACT?

Once the project has been approved at the construction level and the amount of the surety has been established, submit the following to Development Services:

1. [Completed Landscape Surety Form](#)
2. Bond check or letter of credit from a financial institution
3. Copy of 3-Year Maintenance Contract (if applicable)

* Other departments may have additional requirements to be met prior to obtaining a certificate of occupancy.



3-YEAR MAINTENANCE SURETY SUBMITTED AND APPROVED (CONTINUED...)

WHAT TYPES OF SURETIES ARE ACCEPTED?

Bond, Check, Letter of Credit or 3-Year Maintenance Contract Signed

WHAT SHOULD BE INCLUDED IN THE MAINTENANCE CONTRACT?

1. Itemized proof of charge and payment for three years of watering and maintenance for each tree.
2. A written statement that if the maintenance contract is breached, the developer will immediately supply a replacement maintenance contract OR will deposit into the City's tree escrow account the amount set forth in the code (167.04(J)(4)). Contact urban forester for details.

WHEN DOES THE 3-YEAR TIME PERIOD START AND END?

The 3-year time period begins after the project has been inspected and the Certificate of Occupancy has been approved. At the end of the 3-year period, the urban foresters will inspect the site for 90 percent survival rate of all trees installed on-site. If/when the project passes the three year maintenance inspection, the surety will be released. If the project does not pass inspection after the three year time period, the urban foresters will request tree replacements and inspect after installation; at that point, the surety will be released. If less than 90 percent of the trees have survived, the developer has 60 days, after being made aware by the urban forester, to replace the dead trees.

APPENDIX

CHAPTER 1: INTRODUCTION

'INVASIVE SPECIES LIST'
(referenced on page 1)



INVASIVE SPECIES	NATIVE TO ARKANSAS ALTERNATIVE SPECIES
Asian wisteria (<i>Wisteria sinense / floribunda</i>)	American Wisteria (<i>Wisteria frutescens</i>) Carolina Jessamine (<i>Gelsemium sempervirens</i>)
Bigleaf / Littleleaf Periwinkle (<i>Vinca major / Vinca minor</i>)	Partridge Berry (<i>Mitchella repens</i>) Allegheny Spurge (<i>Pachysandra procumbens</i>)
Bradford Pear (<i>Pyrus calleryana</i>)	Flowering Dogwood (<i>Cornus florida</i>) Fringe Tree (<i>Chionanthus virginicus</i>)
Burning Bush (<i>Euonymus alatus</i>)	Fragrant Sumac (<i>Rhus aromatic</i>) Black chokeberry (<i>Aronia melanocarpa</i>)
Bush Honeysuckle (<i>Lonicera maackii / fragrantissima</i>)	Carolina Buckthorn (<i>Rhamnus caroliniana</i>) Winterberry (<i>Ilex verticillata</i>)
Chinese Privet (<i>Ligustrum sinense</i>)	Rusty Blackhaw (<i>Viburnum rufidulum</i>) Yaupon Holly (<i>Ilex vomitoria</i>)
Creeping Euonymus (<i>Euonymus fortunei</i>)	Moss Phlox (<i>Phlox subulata</i>) Common Bearberry (<i>Arctostaphylos uva-ursi</i>)
English Ivy (<i>Hedera helix</i>)	Virginia Creeper (<i>Parthenocissus quinquefolia</i>) Allegheny Spurge (<i>Pachysandra procumbens</i>)
Golden Bamboo (<i>Pylostachys aurea</i>)	River Cane (<i>Arundinaria gigantea</i>) Yaupon Holly (<i>Ilex vomitoria</i>)
Heavenly Bamboo (<i>Nandina domestica</i>)	Carolina Buckthorn (<i>Rhamnus caroliniana</i>) Virginia Sweetspire (<i>Itea virginica</i>)
Japanese Honeysuckle (<i>Lonicera japonica</i>)	Coral Honeysuckle (<i>Lonicera sempervirens</i>) Trumpet-Creeper (<i>Campsis radicans</i>)
Kudzu (<i>Pueraria montana</i>)	Virginia Creeper (<i>Parthenocissus quinquefolia</i>) American Wisteria (<i>Wisteria frutescens</i>)
Multiflora Rose (<i>Rosa multiflora</i>)	Golden currant (<i>Ribes aureum</i>) Climbing Rose (<i>Rosa setigera</i>)
Serica Lespedeza (<i>Lespedeza cuneata</i>)	Round Bush Clover (<i>Lespedeza capitate</i>) Big Bluestem (<i>Andropogon gerardii</i>)
Silktree, Mimosa (<i>Albizia julibrissin</i>)	Fringetree (<i>Chionanthus virginicus</i>) American Smoketree (<i>Cotinus obovatus</i>)
Shrubby Lespedeza (<i>Lespedeza bicolor</i>)	Blue Wild Indigo (<i>Baptisia australis</i>) Roundhead Lespedeza (<i>Lespedeza capitate</i>)
Tree-of-Heaven (<i>Ailanthus altissima</i>)	Kentucky Coffee-Tree (<i>Gymnocladus dioicus</i>) Kentucky Yellowwood (<i>Cladrastis kentukea</i>)

The above invasive plants are prohibited from being installed in new developments requiring landscape review through the City of Fayetteville. Ordinance 5820

APPENDIX

CHAPTER 4: PRE-APPLICATION INFORMATION

'MINIMUM CANOPY REQUIREMENTS CHART'
(referenced on page 5)



ZONING DESIGNATIONS	PERCENT MINIMUM CANOPY
R-A, Residential - Agricultural (nonagricultural uses)	25%
RSF-.5, Single-family Residential – One Half Unit per Acre	25%
RSF-1, Single-family Residential – One Unit per Acre	25%
RSF-2, Single-family Residential – Two Units per Acre	20%
RSF-4, Single-family Residential – Four Units per Acre	25%
RSF-7, Single-family Residential – Seven Units per Acre	20%
RSF-8, Single-family Residential – Eight Units per Acre	20%
R-O, Residential – Office	20%
RT-12, Two and Three-family Residential	20%
RMF-6, Multi-family Residential – Six Units per Acre	20%
RMF-12, Multi-family Residential – Twelve Units per Acre	20%
RMF-18, Multi-family Residential – Eighteen Units per Acre	20%
RMF-24, Multi-family Residential – Twenty-Four Units per Acre	20%
RMF-40, Multi-family Residential – Forty Units per Acre	20%
NS, Neighborhood Services	20%
C-1, Neighborhood Commercial	20%
CS, Community Services	20%
C-2, Thoroughfare Commercial	15%
UT, Urban Thoroughfare	15%
C-3, Central Business Commercial	15%
DC, Downtown Core	10%
MSC, Main Street Center	10%
DG, Downtown General	10%
NC, Neighborhood Conservation	20%
I-1, Heavy Commercial and Light Industrial	15%
I-2, General Industrial	15%
P-1, Institutional	25%
PZD, Planned Zoning District (HHOD)	25% (30%)

CHAPTER 4: PRE-APPLICATION INFORMATION

'PRESERVATION PRIORITIES CHART'
(referenced on page 5 and 7)

HIGH PRIORITY	MID-LEVEL PRIORITY	LOW PRIORITY
Canopied slopes	Contiguous woodlands	Relic orchards
Floodways and riparian buffers	Non-native woodlands	Less desirable species
Native woodlands	Use buffers	
Significant trees		

NOTE : Each of the above is listed alphabetically beneath its respective category. They are not presented in any particular order of importance within that category.

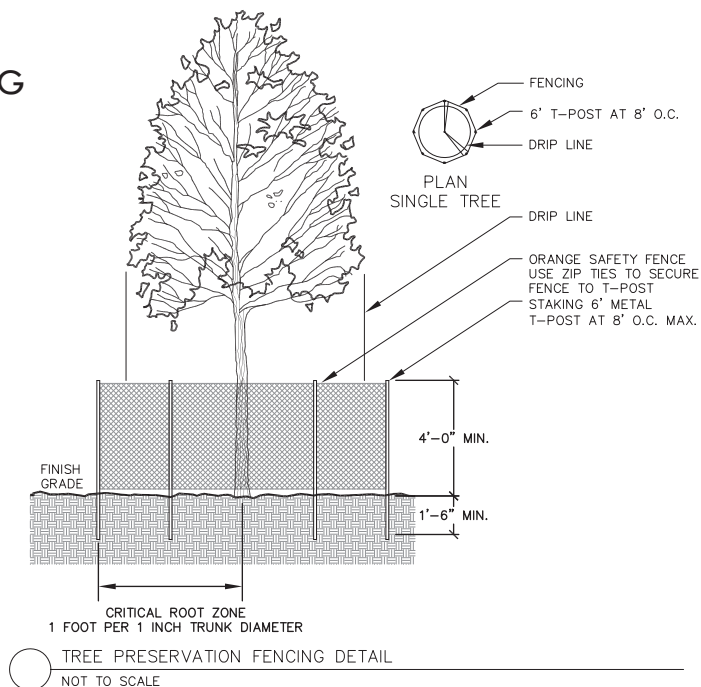
APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'TREE PRESEVATION FENCING INSTALLATION'
(referenced on page 7)



EXAMPLE OF TREE PRESERVATION FENCING INSTALLATION:

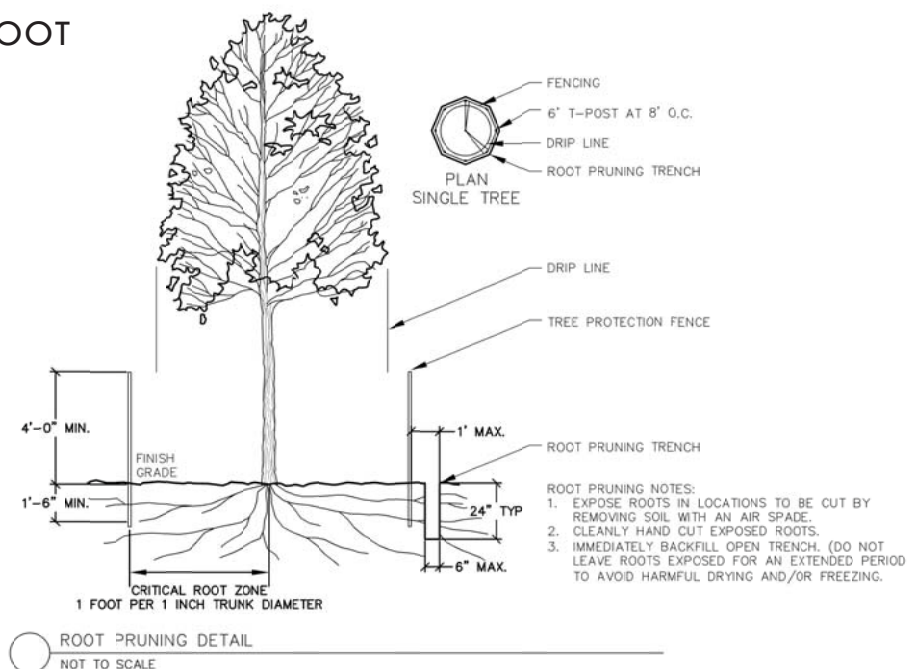


CHAPTER 5: APPLICATION SUBMITTALS

'ROOT PRUNING'
(referenced on page 7)



EXAMPLE OF ROOT PRUNING:



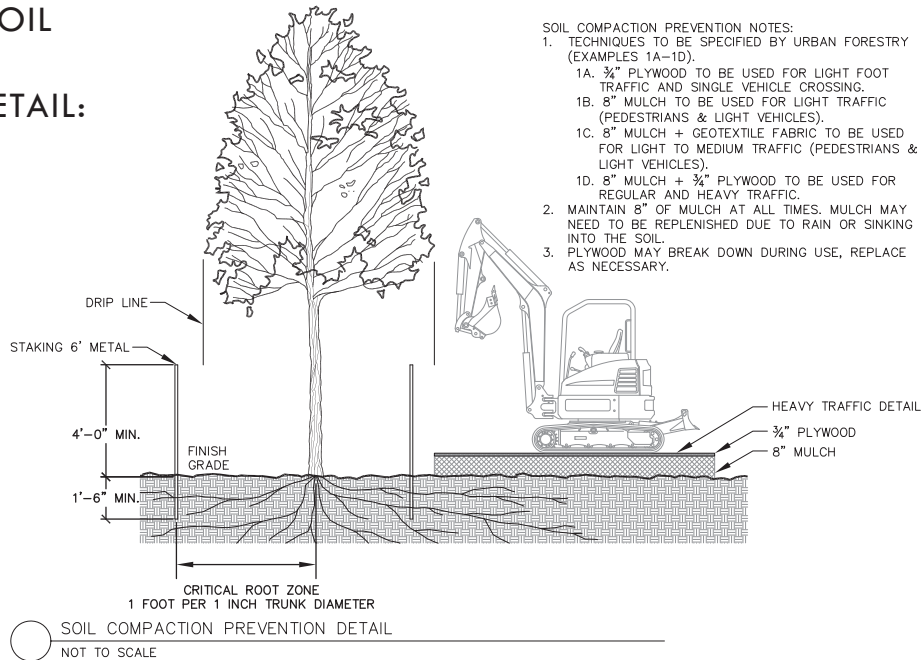
APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'SOIL COMPACTION PREVENTION'
(referenced on page 7)



EXAMPLE OF SOIL COMPACTION PREVENTION DETAIL:

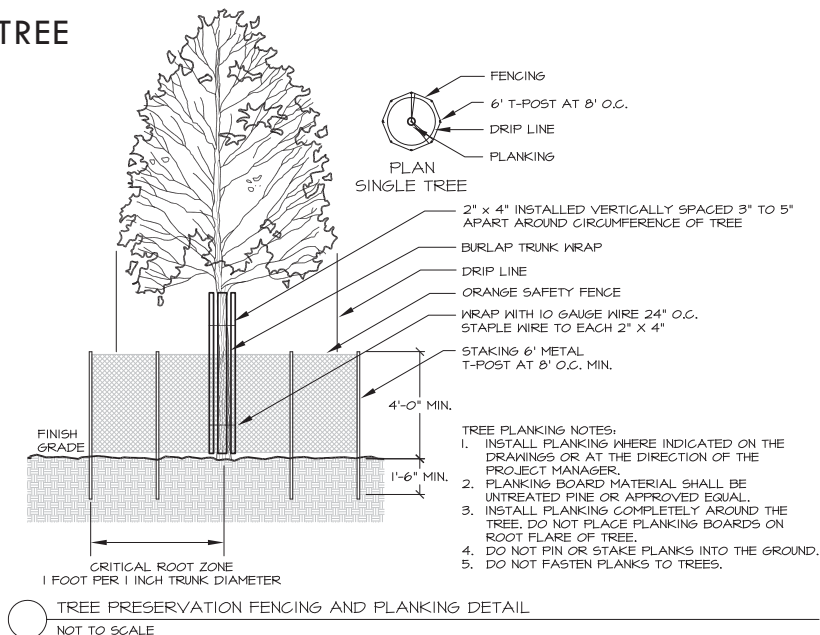


CHAPTER 5: APPLICATION SUBMITTALS

'TREE PLANKING'
(referenced on page 7)



EXAMPLE OF SOIL TREE PLANKING :



APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'TREE PRESERVATION PLAN NOTES'
(referenced on page 7)



EXAMPLE OF TREE PRESERVATION PLAN NOTES:

CITY OF FAYETTEVILLE STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

1. ALL TREES AND NATURAL AREAS SHOWN ON THIS PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF FAYETTEVILLE STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT THE DRIPLINE. FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT ON CONSTRUCTION IN ORDER TO PREVENT THE FOLLOWING:
 - A. SOIL COMPACTION IN THE ROOT ZONE OF AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT.
 - B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6") ROOT TRENCHING NOT VIEWED BY CITY ARBORISTS.
 - C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT.
 - D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING AND FIRES.
6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
 - A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT.
 - B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIPLINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZE ROOT DAMAGE)
 - C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE.
 - D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE OR OTHER SPECIAL REQUIREMENTS.
7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TRUNK, PROTECT THE TRUNK WITH STRAPPED ON PLANKING TO HEIGHT OF 8 FEET (OR LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.
13. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE AMERICAN NATIONAL STANDARD, ANSI-A300 PRUNING, 2008 OR LATER). A CITY CERTIFIED TREE PRUNER MUST BE RETAINED TO MAKE ALL PRUNING CUTS. A LIST OF CERTIFIED TREE PRUNERS IS AVAILABLE FROM THE URBAN FORESTER.
14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

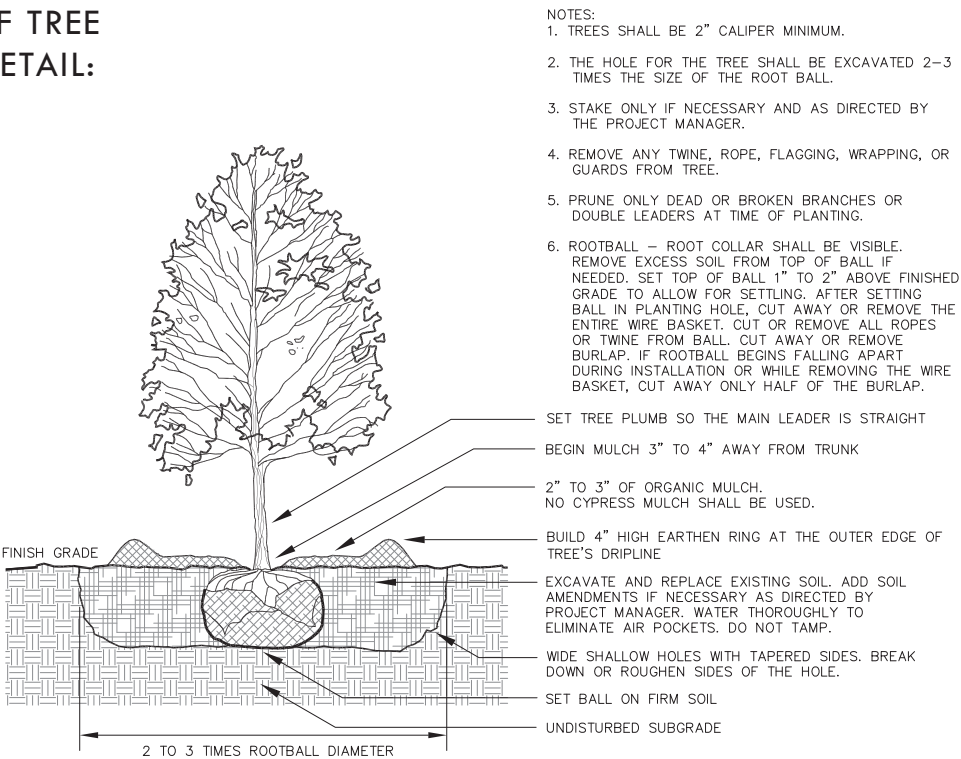
APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'TREE PLANTING DETAIL'
(referenced on page 8)



EXAMPLE OF TREE PLANTING DETAIL:



- NOTES:
1. TREES SHALL BE 2" CALIPER MINIMUM.
 2. THE HOLE FOR THE TREE SHALL BE EXCAVATED 2-3 TIMES THE SIZE OF THE ROOT BALL.
 3. STAKE ONLY IF NECESSARY AND AS DIRECTED BY THE PROJECT MANAGER.
 4. REMOVE ANY TWINE, ROPE, FLAGGING, WRAPPING, OR GUARDS FROM TREE.
 5. PRUNE ONLY DEAD OR BROKEN BRANCHES OR DOUBLE LEADERS AT TIME OF PLANTING.
 6. ROOTBALL — ROOT COLLAR SHALL BE VISIBLE. REMOVE EXCESS SOIL FROM TOP OF BALL IF NEEDED. SET TOP OF BALL 1" TO 2" ABOVE FINISHED GRADE TO ALLOW FOR SETTLING. AFTER SETTING BALL IN PLANTING HOLE, CUT AWAY OR REMOVE THE ENTIRE WIRE BASKET. CUT AWAY OR REMOVE ALL ROPES OR TWINE FROM BALL. CUT AWAY OR REMOVE BURLAP. IF ROOTBALL BEGINS FALLING APART DURING INSTALLATION OR WHILE REMOVING THE WIRE BASKET, CUT AWAY ONLY HALF OF THE BURLAP.

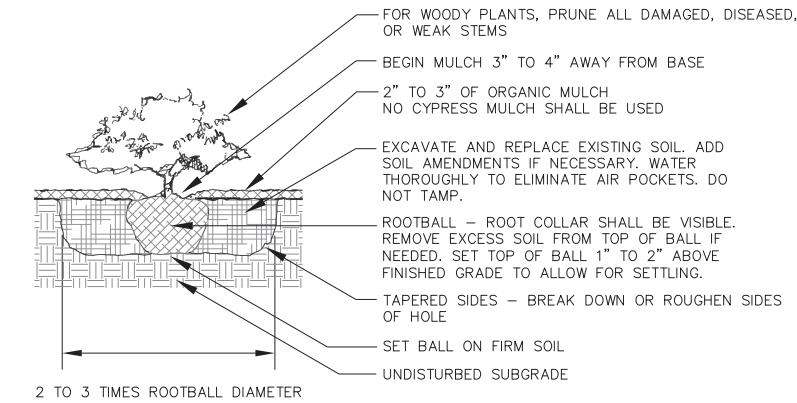
TREE PLANTING DETAIL
NOT TO SCALE

CHAPTER 5: APPLICATION SUBMITTALS

'SHRUB PLANTING DETAIL'
(referenced on page 8)



EXAMPLE OF SHRUB PLANTING DETAIL:



SHRUB PLANTING DETAIL
NOT TO SCALE

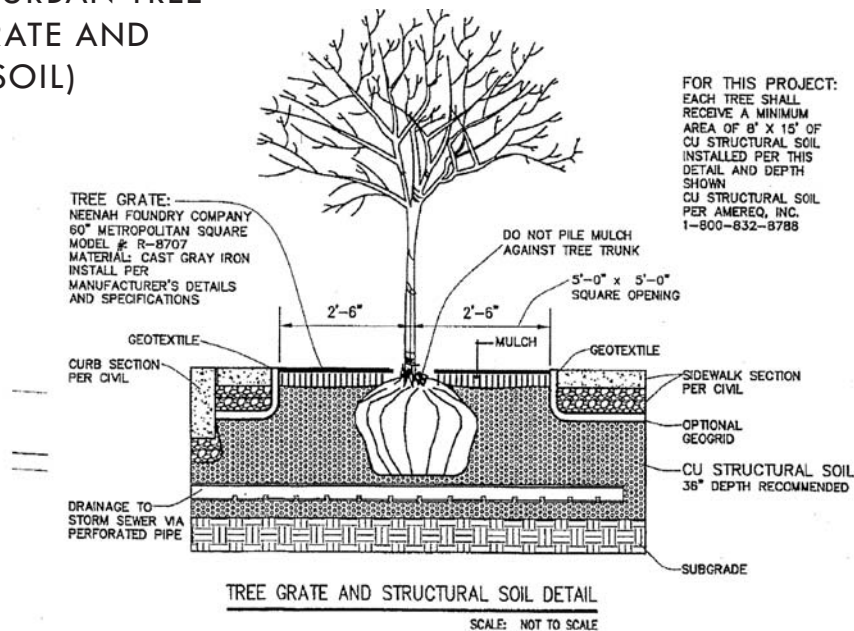
APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'URBAN TREE WELL(TREE GRATE AND STRUCTURAL SOIL) DETAIL'
(referenced on page 11)



EXAMPLE OF URBAN TREE WELL(TREE GRATE AND STRUCTURAL SOIL) DETAIL:

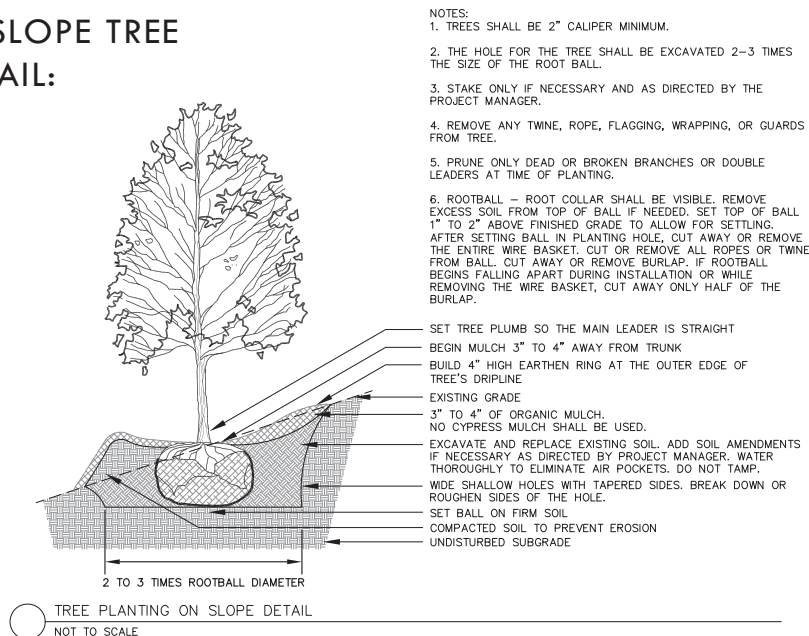


CHAPTER 5: APPLICATION SUBMITTALS

'SLOPE TREE PLANTING DETAIL'
(referenced on page 11)



EXAMPLE OF SLOPE TREE PLANTING DETAIL:



APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'STANDARD LANDSCAPE NOTES'
(referenced on page 11)



EXAMPLE OF STANDARD LANDSCAPE NOTES:

(PAGE 1)

1. Contractor shall confirm the location of all utilities prior to starting any work. The contractor is responsible for contacting Arkansas one-call to confirm all utilities.
2. All plants must be healthy, vigorous and free of pests and disease.
3. Standards set forth in "American Standard for Nursery Stock" represent guideline specifications only and shall constitute minimum quality requirements for plant material.
4. All plants must be container grown or balled and burlapped as indicated on the plant list.
5. All required trees shall be 2" minimum caliper, with a single dominate central trunk. Multi-trunk trees will not be acceptable without prior approval from urban forestry.
6. All trees must be straight trunked and full headed, unless specified otherwise, and must meet all requirements specified on plans.
7. All trees and shrubs shall be installed per standard city of Fayetteville planting details.
8. All plants are subject to the approval of the landscape architect before, during, and after construction.
9. All planting areas must be completely mulched with a 4" layer of organic hardwood mulch. Mulch shall be not be placed immediately adjacent to tree trunks, but shall be kept at least 3" from root collar at the soil line.
10. All proposed planting areas covered by grass shall have the sod completely removed before planting begins.
11. All planting beds shall be contained by edging material other than vegetation.
12. Prior to construction, the contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. The contractor is responsible for repairing any and all damage to utilities, structures, site appurtenances, etc. Which occurs as a result of the landscape construction at no cost to the owner.
13. The contractor is responsible for verifying all quantities shown on these plans before pricing the work.
14. The contractor is responsible for fully maintaining all planting material (including but not limited to: watering, spraying, mulching, fertilizing, etc.) In all planting areas and lawn areas until the work is accepted in total by the owner.

...EXAMPLE CONTINUED ON NEXT PAGE

...EXAMPLE OF STANDARD LANDSCAPE NOTES CONTINUED

(PAGE 2)

15. The contractor shall completely guarantee all plant material for a period of one (1) year beginning on the date of total acceptance. The contractor shall promptly make all replacements before or at the end of the guarantee period.
16. Any plant material which dies, turns brown, or defoliates (prior to total acceptance of the work) shall be promptly removed from the site and replaced with material of the same species, quantity, and size and meeting all plant list specifications.
17. Notify landscape architect or designated representative of any layout discrepancies prior to any planting. Locate all utilities and site lighting conduits before construction begins.
18. All disturbed areas shall be seeded with a grass seed mix consisting of 70% turf type fescue, 20% perennial rye, and 10% Bermuda grass at 5 pounds per 1,000 square feet.
19. All areas to be seeded shall receive 4" of topsoil and be graded per the grading plan.
20. Irrigation shall be either an underground automatic system or shall utilize hose bibs every 100' as required by Fayetteville landscape ordinance.
21. Maintenance: the current owner of the property shall be responsible for the ongoing maintenance of required landscaping.
22. Replacement landscaping: required landscaping that dies or is damaged shall be removed and replaced by the current owner of the property. The owner shall have 60 days from the receipt of written notice issued by the city to remove and replace any required landscaping that dies or is damaged.
23. Three (3) year maintenance surety shall be deposited for each required street and mitigation tree.
24. Any structural soil required must be indicated on plan, have certified documentation, and be inspected by Urban Forester at time of installation.
25. Maintain 5' min. horizontal separation between tree plantings and utility lines.
26. All planting details are according to Fayetteville Landscape Manual.

APPENDIX

CHAPTER 5: APPLICATION SUBMITTALS

'RECOMMENDED TREE LIST'
(referenced on page 8)



LARGE SPECIES Mature height reaching 45' or above

Common Name	Scientific Name
American Beech	<i>Fagus grandifolia</i>
Baldcypress	<i>Taxodium distichum</i>
Bitternut Hickory	<i>Carya cordiformis</i>
Black Oak	<i>Quercus velutina</i>
Black Gum	<i>Nyssa sylvatica</i>
Black Walnut	<i>Juglans nigra</i>
Bur Oak	<i>Quercus macrocarpa</i>
Chinkapin Oak	<i>Quercus muehlenbergii</i>
Eastern White Pine	<i>Pinus strobus</i>
Frontier Elm	<i>Ulmus carpinifolia x parvifolia</i>
Hackberry	<i>Celtis occidentalis</i>
Japanese Scholar Tree	<i>Sophora japonica</i>
Japanese Zelkova	<i>Zelkova serrata</i>
Jefferson Elm	<i>Ulmus americana 'Jefferson'</i>
Lacebark Elm	<i>Ulmus parvifolia</i>
Littleleaf Linden	<i>Tilia cordata</i>
Loblolly Pine	<i>Pinus taeda</i>
Norway Spruce	<i>Picea abies</i>
Northern Red Oak	<i>Quercus rubra</i>
Osage Orange	<i>Maclura pomifera</i>
Pecan	<i>Carya illinoensis</i>
Prospector Elm	<i>Ulmus wilsoniana</i>
River Birch	<i>Betula nigra</i>
Scotch Pine	<i>Pinus sylvestris</i>
Shagbark Hickory	<i>Carya ovata</i>
Shingle Oak	<i>Quercus imbricaria</i>
Shumard Oak	<i>Quercus shumardi</i>
Shortleaf Pine	<i>Pinus echinata</i>
Silver Linden	<i>Tilia tomentosa</i>
Southern Magnolia	<i>Magnolia grandiflora</i>
Southern Red Oak	<i>Quercus falcate</i>
Southern Catalpa	<i>Catalpa bignonioides</i>
Sycamore	<i>Platanus occidentalis</i>
Sugar Maple	<i>Acer saacharum</i>
Sugarberry	<i>Celtus laevigata</i>
Swamp White Oak	<i>Quercus bicolor</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Tuliptree	<i>Liriodendron tulipifera</i>
Turkish Filbert	<i>Corylus colurna</i>
Water Oak	<i>Quercus nigra</i>
White Oak	<i>Quercus alba</i>
Willow Oak	<i>Quercus phellos</i>

APPENDIX

MEDIUM SPECIES Mature height reaching 30'-45'

Common Name	Scientific Name
American Hophornbeam	<i>Ostrya virginiana</i>
American Holly	<i>Ilex Opaca</i>
Chinese Pistache	<i>Pistacia chinensis</i>
Crepe Myrtle	<i>Lagerstroemia indica</i>
Eastern Arborvitae	<i>Thuja occidentalis</i>
Eastern Redcedar	<i>Juniperus virginiana</i>
English Oak	<i>Quercus robur</i>
Hawthorns	<i>Crataegus paniculata</i>
Goldenrain Tree	<i>Koelreuteria paniculata</i>
Japanese Black Pine	<i>Pinus thunbergii</i>
Japanese Yew	<i>Taxus cuspidata</i>
Persimmon	<i>Diospyros virginiana</i>
Rocky Mountain Juniper	<i>Juniperus scopulorum</i>
Sassafras	<i>Sassafras albidum</i>
Scarlet Oak	<i>Quercus coccinea</i>
Thornless Honeylocust	<i>Gleditsia tricanthos</i>
Yellowwood	<i>Cladrastis kentuckea</i>

SMALL SPECIES Less than 30' in height

Common Name	Scientific Name
American Smoketree	<i>Cotinus obovatus</i>
Crabapple	<i>Malus speciose</i>
Fringe Tree	<i>Chionanthus virginicus</i>
Flowering Dogwood	<i>Cornus florida</i>
Lilac	<i>Syringa species</i>
'Little Gem' Magnolia	<i>Magnolia grandiflora 'Little Gem'</i>
Oriental Arborvitae	<i>Platycladus orientalis</i>
Possumhaw	<i>Ilex deciduas</i>
Serviceberry	<i>Amelanchier arborea</i>
Saucer Magnolia	<i>Magnolia x soulangiana</i>
Star Magnolia	<i>Magnolia stellata</i>
Sweet Bay Magnolia	<i>Magnolia virginiana</i>
Trident Maple	<i>Acer buergerianum</i>
Yaupon Holly	<i>Ilex vomitoria</i>

APPENDIX

SHRUB SPECIES

Common Name	Scientific Name
Buckthorn	<i>Rhamnus frangula</i>
Butterfly Bush	<i>Buddlei davidii</i>
Chokeberry	<i>Aronia species</i>
Cotoneaster	<i>Cotoneaster species</i>
English Laurel	<i>Prunus laurocerasus</i>
Elderberry	<i>Sambucus nigra</i>
Fragrant Sumac	<i>Rhus aromatic 'Gro-Low'</i>
Flowering Quince	<i>Chaenomelies speciose</i>
Forsythia	<i>Forsythia species</i>
Forthergilla	<i>Fothergilla gardenia</i>
Glossy Abelia	<i>Abelia grandiflora</i>
Hydrangea	<i>Hydrangea species</i>
Mahonia	<i>Mahonia species</i>
Mock Orange	<i>Philadelphus</i>
Mugo Pine	<i>Pinus mugo</i>
Pieris	<i>Pieris species</i>
Pyracantha	<i>Pyracantha species</i>
Spirea	<i>Spirea species</i>
Twig Dogwood	<i>Cornus sericea</i>
Viburnum	<i>Viburnum species</i>
Weigela	<i>Weigela species</i>
Yew	<i>Taxus species</i>
Yucca	<i>Yucca species</i>

VINE SPECIES

Common Name	Scientific Name
Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Boston Ivy	<i>Parthenocissus tricuspidata</i>
Trumpet Creeper	<i>Campsis radicans</i>
Crossvine	<i>Bignonia capreolata</i>